$\overline{\overline{M}}$ $\overline{\overline{d}}$ $\overline{\overline{e}}$ $\overline{\overline{\overline{b}}}$ $\overline{\overline{\overline{b}}}$

CARLISLE POLYPROPYLENE GEOMEMBRANE

MSDS No. 305233

Date of Preparation: 09/09/2010 Revision: 001

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Carlisle Polypropylene Geomembrane (Industrial and Potable Grades)

Chemical Formula: Mixture

General Use: Geosynthetic membrane for pond liners, water reservoirs, floating water covers, etc.

Manufacturer: Carlisle Construction Materials Incorporated, 1285 Ritner Highway, Carlisle, PA 17013,

Phone: 800-479-6832

Emergency Phone Number: CHEMTREC (USA) 800-424-9300

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt <i>or</i> % vol
Propylene ethylene copolymer	9010-79-1	>50
Magnesium hydroxide	1309-42-8	>10
Stabilizers (trade secret)		>5

Hazardous Ingredients:

	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
Ingredient	TWA	STEL	TWA	STEL	TWA	STEL	IDLH

This product is considered to be a finished article as defined by 29 CFR 1910.1200 and is exempt from the requirements of the Hazard Communication standard. This product is nonhazardous as per 29 CFR 1910.1200.

Section 3 - Hazards Identification

Potential Health Effects

HMIS H 0 F 1 P 0 PPE[†] †Sec. 8

Primary Entry Routes: None

Target Organs: Not Applicable

Acute Effects

Inhalation: Inhalation of vapor from this product during heat welding may cause respiratory tract irritation.

Eye: Vapor from this product during heat welding may irritate eyes.

Skin: Exposure to hot surfaces during heat welding may cause thermal burns.

Ingestion: Ingestion difficult, no known health effects.

Carcinogenicity: None Known

Medical Conditions Aggravated by Long-Term Exposure: None Known

Chronic Effects: None Known

Section 4 - First Aid Measures

Inhalation: If breathing becomes difficult, remove person from heat welding area and get medical attention.

Eye Contact: If eye irritation continues after welding, flush eyes with water for 15 minutes

Skin Contact: If skin is burned from welding operation, cool with running water. Get medical attention if necessary.

Ingestion: Not Applicable

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: None

Special Precautions/Procedures: None

Section 5 - Fire-Fighting Measures

Flash Point: Above 329 °C Flash Point Method: Setchkin Burning Rate: Not Determined Autoignition Temperature: >357 °C

LEL: Not Applicable **UEL:** Not Applicable

Flammability Classification: Not flammable.



Extinguishing Media: Water spray, dry chemical, foam, or carbon dioxide.

Unusual Fire or Explosion Hazards: None

Hazardous Combustion Products: Toxic gases or vapors, such as carbon monoxide and other organic compounds may be released in a fire.

Fire-Fighting Instructions: Standard procedures for Class A fires. Use self-contained breathing apparatus (SCBA) and protective clothing for structural fire fighting.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Handle as normal solid waste.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.1200).

Section 7 - Handling and Storage

Handling Precautions: Keep away from sparks and open flame.

Storage Requirements: This product may react with strong oxidizing agents and should not be stored near such materials. Best to store rolls in areas protected by automatic sprinklers. Store product below 60°C (140°F) to prevent roll sticking at installation **Regulatory Requirements:** Not Applicable

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: Provide adequate ventilation during heat welding.

Ventilation: Heat welding in an outdoor environment will normally provide adequate ventilation.

Administrative Controls: Assure that adequate ventilation is provided during heat welding.

Respiratory Protection: A respiratory protection program that meets OSHA 1910.134, ANSI Z88.2 and / or CSA Z94.4-93

requirements must be followed whenever workplace conditions warrant use of a respirator.

Protective Clothing/Equipment: Work boots and work clothing recommended. Sunglasses which filter out ultraviolet light are strongly recommended for application of white geomembrane since the white surface is highly reflective to sunlight. White surfaces reflect heat and light.

Safety Stations: Emergency eyewash stations or source of clean running water recommended in vicinity of project

Contaminated Equipment: Not Applicable

Comments: Never eat, drink, or smoke in work areas. Best to wash hands after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: Solid Water Solubility: Practically insoluble in water

Appearance and Odor: Black-on-black sheet; slight waxy odor. (black top may be replaced by tan, gray, etc)

Odor Threshold(ppm): Not Determined

Freezing/Melting Point(°C): >120

Odor Threshold(ppm): Not DeterminedFreezing/Melting Point(°C): >120Vapor Pressure:Not ApplicableVapor Density (Air=1): Not ApplicableRefractive Index:Not ApplicableFormula Weight:Not ApplicableSurface Tension:Not ApplicableDensity:% Volatile:Not Determined

Specific Gravity (H₂O=1, at 4 °C): 0.95-1.05
We volatile: Not Determined Evaporation Rate: Not Applicable

pH: Not Applicable

Section 10 - Stability and Reactivity

Stability: Stable.

Polymerization: Will not occur.

Chemical Incompatibilities: Any strong oxidizing agent. **Conditions to Avoid:** Keep away from heat, sparks or open flame

Hazardous Decomposition Products: Gases or vapors such as carbon monoxide, carbon dioxide, or oxides of nitrogen, and

other organic compounds may be released in a fire.

Section 11- Toxicological Information

Toxicity Data:

Eye Effects: None Known
Skin Effects: None Known
Acute Inhalation Effects: None Known
Acute Oral Effects: None Known

Chronic Effects: None Known Carcinogenicity: No evidence Mutagenicity: No evidence. Teratogenicity: No evidence.

Section 12 - Ecological Information

Ecotoxicity: None Known

Environmental Fate: This product is not readily biodegradable

Environmental Degradation: Not Determined Soil Absorption/Mobility: Not Determined

Section 13 - Disposal Considerations

Disposal: (1) Recycle / reprocess; (2) Incineration including energy recovery of waste material in a permitted facility in accordance with local, state or federal regulations; (3) Landfilling in a licensed facility in accordance with local, state or federal regulations

Disposal Regulatory Requirements: This product is not judged to be a hazardous waste by any local, state or federal regulation. This product is not listed in the U.S. federal hazardous waste regulations, 40 CFR261.33 paragraphs (e) or (f)

Container Cleaning and Disposal: Not Applicable

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

This product is not regulated by DOT, IMO, IATA, Canadian TDG and associated regulations ADR or RID.

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: Not Listed RCRA Hazardous Waste Classification: Not Classified CERCLA Hazardous Substance: Not Listed CERCLA Reportable Quantity (RQ): Not Listed

SARA 311/312 Codes: This product is not subject to SARA Title III requirements

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not Listed

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance: Not Listed

State Regulations: California Proposition 65: This product contains the following chemical(s) known to the state of California

to cause cancer: None.

Section 16 - Other Information

Prepared By: Research & Development (BG)

Revision Notes: Section 1 – Carlisle SynTec Incorporated to Carlisle Construction Materials Incorporated

Additional Hazard Rating Systems:

Disclaimer: The information contained in this document is based upon data that was supplied to Carlisle by other companies and organizations. No warranty of merchantability or fitness for a particular purpose is expressed or implied regarding the accuracy or completeness of the data and/or information in this material safety data sheet.